

	EGG		Date Hatched	HATCHLING		
	Size (mm)	Weight (gms)		S.V.L. (mm)	Total Length	Weight (gms)
A	8 x 4	.065	10-2-83	15	31	.049
B	7 x 4	.056	7-2-83	13	28	.033
C	7 x 5	.078	7-2-83	16	36	.072

Table 1. Egg and hatchling data for captive *Menetia greyii*.

In 1981/82 two eggs from this species were successfully incubated without an artificial heat source; these took 104 days to hatch (24/11/81 - 7/3/82). The estimated full-term mean temperature during this period was 19.6°C (range = 12° - 39°) compared to 28° (range = 24° - 32°) for the present study. Between 5 and 12 February 1983 I observed in the field many small *Menetia greyii* similar in size to the hatchlings recorded here, suggesting that there is a uniform oviposition time throughout the population in this area, and that the deposition sites selected by gravid females have similar temperature conditions to those used in the present study.

ACKNOWLEDGEMENTS

I wish to thank Dr. Glenn Storr for assistance in preparing these notes.

REFERENCE

JENKINS, R. and BARTELL, R. 1980. *Reptiles of the Australian High Country*. Inkarta Press, Melbourne.

USE OF A MAN-MADE FORESHORE BY WADING BIRDS AT HERDSMAN LAKE

By OTTO MUELLER, 7 Hamer Avenue, Wembley Downs 6019

INTRODUCTION

The wetlands of the Swan Coastal Plain have declined alarmingly during the last few decades. There is an obligation on our part to retain or maintain wetlands for the benefit of transmigration wadingbirds in accordance with a bilateral agreement to this effect between Australia and Japan (Anon 1974). In line with the above philosophy the developers at Herdsman Lake have attempted to provide suitable habitat for wading and marshland birds. The Lake is situated in the Perth metropolitan area at 31°55'S and 115°48'E.

During the summer of 1981/82 I decided to monitor the number of wading birds using the man-made foreshore. Between 12 November 1981 and 4 March 1982 the survey area was traversed every second day. Fifty visits were made during which the number and behaviour of each species was recorded. The study area is the western shoreline of a newly dredged lake within the boundaries of a large swamp area. The 900 m long artificial shoreline is slightly curved with baylets and one small headland. For public safety reasons it was given a very shallow gradient. To facilitate landscaping the area was topped with 200 mm sand over the underlying peat soil. The sand extends well into the water. The marginal vegetation consists of introduced weeds like *Coryza bonariensis*, *Paspalum paspalodes*, *Echinochloa crus-galli*, *Phyla nodiflora*, *Sisyrinchium micranthum*, *Aster subulatus*, *Atriplex hastata*, and *Chenopodium macrospermum*. There are also bullrushes (*Typha orientalis*), which in 12 clusters grow sometimes well out into the open water. In places vegetation failed to establish and ceased well before the water's edge thus giving wadingbirds ample opportunity to forage.

DISCUSSION

Despite numerous observations by amateurs over many years, there is little published literature on the wildlife of Herdsman Lake. The exceptions being Anon. (1980) and Curry (1981).

The species recorded with data on frequency of records and number of individuals seen are shown in Table 1. No waders were seen during eight visits. Figure 1 indicates the total number of individuals of all species during the 4 months study.

No.	Species		No. of times seen	Min. No. of birds	Max. No. of birds
1.	Whitefaced Heron	<i>Ardea noveahollandiae</i>	1	1	1
2.	Glossy Ibis	<i>Plegadis falcinellus</i>	3	1	2
3.	Red-kneed Dotterel	<i>Erythrogonys cinctus</i>	6	1	1
4.	Red-capped Plover	<i>Charadrius ruficapillus</i>	6	1	3
5.	Black-fronted Plover	<i>Charadrius melanops</i>	23	1	6
6.	Black-winged Stilt	<i>Himantopus himantopus</i>	25	1	15
7.	Red-necked Avocet	<i>Recurvirostra noveaholl.</i>	1	3	3
8.	Common Sandpiper	<i>Tringa hypoleucos</i>	16	1	3
9.	Red-necked Stint	<i>Callidris ruficollis</i>	5	1	3

Table 1. A list of species, their frequency and numbers.

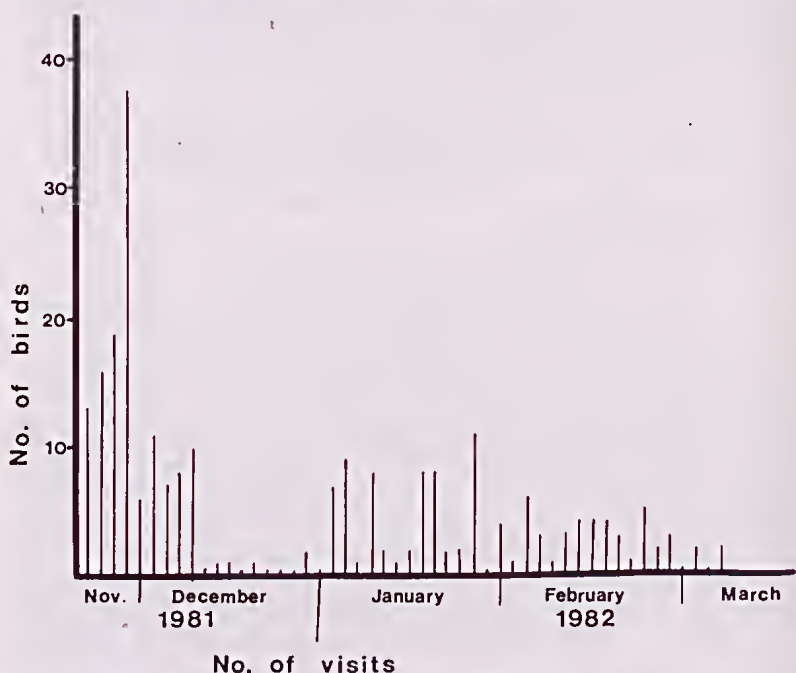


Figure 1. Observed number of birds shown on a monthly basis.

The species most often seen by me were Black-winged Stilt, Black-fronted Plover and Common Sandpiper. The highest number of individuals per species per observation were 15 Black-winged Stilt on 28 November and 13 Red-necked Stint on 26 November.

Only two (common Sandpiper and Red-necked Stint) belong to the palearctic group of wading birds. Both species showed preference for certain parts of the shoreline only. These were at the muddier southern end of the study area. The northern sandier and more open sections were never visited.

The remaining seven species, when present, spread out evenly along the entire foreshore. Most of them, however, use the area more for resting purposes than active feeding. Those belonging to this group were number 1, 2, 6 and 7 as listed in Table 1. For example the Black-winged Stilts were observed picking for food only casually. Preening and slow walking by this species

accounted for most of the time spent on the shore. This behaviour was very different to what could be observed in another part of the same lake (see below) or in other parts of the Perth Metropolitan area like Pelican Point and Alfred Cove.

In contrast three species, namely number 3, 4 and 5 were actively feeding, running and catching insects with only brief intervals of rest or preening.

The time versus observation graph Figure 1 indicates clearly that the maximum number of birds occurred in November and early December 1981. During that period the water level was falling steadily. No explanation can be given for the paucity of birds during the remainder of December even though increasing amounts of shore area became available.

Different parts of a wetland may, however, produce different types and quantities of food for the species under study. This is then where additional, concurrent observations outside the study shoreline could assume an explanatory significance. While water levels were falling until the arrival of unusual and heavy rains in mid-January, 1982, muddy peat ridges were increasingly exposed in the southwestern sector of the lake. These ridges originated from the not-contoured or dredged lake bottom thereby being much shallower than the main part of the lake. Consequently in those shallower water areas with a summer depth of only 100 mm and on those emerging mounds or banks many waders were actively engaged in foraging. Birds were observed there continually from the beginning of the study until 18 January, 1982. Over 50 birds of different species were counted there on one occasion.

CONCLUSION

It was the intention of the developer to combine an ornamental lake with an increased and enhanced habitat for transequatorial waders. My brief study suggests that this attempt was only partly successful. Future projects of this type should concentrate on more shallow water areas or fenlands as distinct from landscaped or ornamental, but costly, foreshores.

ACKNOWLEDGEMENTS

The author wishes to express his appreciation to Mr. T. Aplin of the W.A. Herbarium for the identification of plant specimens and Mr. John Dell of the W.A. Museum for commenting on the manuscript.

REFERENCES

- CURRY, P. 1981. A Survey of the Birds of Herdsman Lake 1980-81, Bulletin 105, Department of conservation and Environment, Perth, W.A.
- ANON. 1980. Herdsman Lake Bird Sanctuary, Conservation council of Western Australia, Perth, W.A.
- ANON. 1971. Convention on Wetlands of International Importance especially as Waterfowl Habitat, Ramsar. IUCN, Switzerland.
- ANON. 1974. Agreement between the Government of Australia and the Government of Japan for the Protection of Migratory Birds in danger of extinction and their Environment (Tokyo, 6 Febr. 1974). Entry into force: 30 April 1974. Published by Australian Government Printing Services for Dept. of Foreign Affairs, Canberra.

THE RUSTY-TAILED FLYEATER, A NEW SPECIES FROM QUEENSLAND

By JULIAN FORD, Western Australian Institute of Technology, Bentley, W.A. 6102 and R.E. JOHNSTONE, Western Australian Museum, Perth, W.A. 6000.

INTRODUCTION

Two specimens of a hitherto undescribed taxon of flyeater (*Gerygone*, Acanthizidae, Passerines) have been discovered in the collection of the Australian Museum, Sydney (AM), and a third specimen is contained in the American Museum of Natural History, New York (AMNH). The AM specimens have been labelled as the Large-billed Flyeater *G. magnirostris* and the AMNH specimen as *Gerygone* sp. Though there is some doubt regarding the exact collecting localities of these specimens, they are so distinct and yet uniform in morphology, a description of a new taxon is warranted.